

Application No. 10/608,979

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) An inflator comprising:

a housing connected on one end by a first endcap and connected on an opposite end by a second endcap;

a first igniter having ignition material that burns upon actuation of the first igniter by an electrical signal, the first igniter being held at the first endcap;

a first autoignition material being in intimate contact with the first igniter whereby the first autoignition material is ignited from the burning of the ignition material of the first igniter; [[and]]

a first gas generant for producing inflation gas for inflating an airbag, ~~whereby the burning of the autoignition material burns the first gas generant~~, the first gas generant is being separated from direct contact with the first endcap, the second endcap, and the housing~~[[.]]~~;

a first enhancer for igniting the first gas generant, wherein the burning of the first autoignition material ignites the first enhancer which then ignites the first gas generant;
and

a first enhancer retainer for retaining the first enhancer, the first enhancer retainer being spaced from direct contact with the first endcap, the enhancer retainer comprises an enhancer recess for holding the first enhancer, a connection portion and an annular mounting portion arranged substantially parallel with the first endcap, wherein the connection portion connects the enhancer recess to the mounting portion, the connection portion has a plurality of first enhancer retainer holes for passage of hot gas from first enhancer to the first gas generant, the plurality of first enhancer retainer holes and the enhancer recess being spaced from the first endcap and covered by a first burst foil located between the first enhancer retainer and the first endcap.

Application No. 10/608,979

2. (cancelled)

3. (cancelled)

4. (cancelled)

5. (currently amended) The inflator according to claim 1 further comprising a cylindrical filter encircling the first gas generant and a focuser for reducing the quantity of first gas generant in contact with an inner surface of the cylindrical filter.

6. (original) The inflator according to claim 1 further comprising a second igniter and a second autoignition material, wherein burning of the second igniter ignites the second autoignition material.

7. (original) The inflator according to claim 6 further comprising a second enhancer and a second gas generant, wherein the burning of the second autoignition material ignites the second enhancer, the burning of the second enhancer ignites the second gas generant.

8. (original) The inflator according to claim 7 further comprising a second enhancer retainer comprising a tubular portion for receiving the second enhancer, the second enhancer retainer comprises an annular securing portion arranged substantially parallel with the second endcap.

Application No. 10/608,979

9. (original) The inflator according to claim 8 wherein the second enhancer retainer comprises an intermediary portion connecting the securing portion with the tubular portion, wherein the intermediary portion has a plurality of second enhancer retainer holes for providing a passageway for the hot gas from the second enhancer to reach the second gas generant.

10. (currently amended) An inflator comprising:
a housing connected on one end by a first endcap and on an opposite end by a second endcap;
a first enhancer for igniting a first gas generant, the first gas generant being separated from direct contact with the first endcap, the second endcap and the housing;
a second enhancer for igniting a second gas generant, the second gas generant being separated from direct contact with the first endcap, the second endcap and the housing;
a second enhancer retainer spaced from direct contact with the second endcap comprising a tubular portion for receiving the second enhancer, an annular securing portion arranged substantially parallel with the second endcap; and an intermediary portion connecting the securing portion with the tubular portion, wherein the intermediary portion has a plurality of second enhancer retainer holes for providing a passageway for the hot gas from the second enhancer to reach the second gas generant, the second enhancer retainer holes and the second enhancer retainer being spaced from the second endcap and covered by a second burst foil located between the second enhancer retainer and the second endcap; and,
an autoignition cartridge comprising pyrotechnic material that ignites at a temperature below the combustion temperature of the first gas generant whereby the burning of the first gas generant ignites the pyrotechnic material of the autoignition cartridge, the burning of the pyrotechnic material of the autoignition cartridge ignites the second enhancer which in turn ignites the second gas generant.

Application No. 10/608,979

11. (cancelled)

12. (cancelled)

13. (currently amended) The inflator according to claim ~~[[12]]~~ 10 wherein the second gas generant is in closer proximity to the second endcap than the second enhancer.

14. (original) The inflator according to claim 13 further comprising a divider for separating the second gas generant and the second enhancer from the first gas generant, wherein the autoignition cartridge is situated between the divider on one side and the second enhancer on the other side.

15. (original) The inflator according to claim 13 wherein further comprising a diffuser cap with diffuser cap apertures arranged around the circumference thereof, wherein hot gas from the burning of the second gas generant pass through the diffuser cap apertures and then through a filter, wherein the filter also filters hot gas from the burning of the first gas generant.

16. (original) The inflator according to claim 13 further comprising a spring for reducing rattling of the first gas generant and for maintaining a predetermined distance between the diffuser cap and the first gas generant.

Application No. 10/608,979

17. (new) An inflator comprising:
- a housing connected on one end by a first endcap and on an opposite end by a second endcap;
 - a first enhancer for igniting a first gas generant;
 - a second enhancer for igniting a second gas generant;
 - a second enhancer retainer spaced from direct contact with the second endcap comprising a tubular portion for receiving the second enhancer, an annular securing portion arranged substantially parallel with the second endcap; and an intermediary portion connecting the securing portion with the tubular portion, wherein the intermediary portion has a plurality of second enhancer retainer holes for providing a passageway for the hot gas from the second enhancer to reach the second gas generant;
 - an autoignition cartridge comprising pyrotechnic material that ignites at a temperature below the combustion temperature of the first gas generant whereby the burning of the first gas generant ignites the pyrotechnic material of the autoignition cartridge, the burning of the pyrotechnic material of the autoignition cartridge ignites the second enhancer which in turn ignites the second gas generant; and
 - an inflator wherein the second gas generant is in closer proximity to the second endcap than the second enhancer.

18. (new) The inflator according to claim 17 further comprising a divider for separating the second gas generant and the second enhancer from the first gas generant, wherein the autoignition cartridge is situated between the divider on one side and the second enhancer on the other side.

Application No. 10/608,979

19. (new) The inflator according to claim 17 wherein further comprising a diffuser cap with diffuser cap apertures arranged around the circumference thereof, wherein hot gas from the burning of the second gas generant pass through the diffuser cap apertures and then through a filter, wherein the filter also filters hot gas from the burning of the first gas generant.

20. (new) The inflator according to claim 17 further comprising a spring for reducing rattling of the first gas generant and for maintaining a predetermined distance between the diffuser cap and the first gas generant.